

# NATIONAL IRRIGATION WORK

## How Uncle Sam Is Reclaiming Millions of Acres of Non-Productive and Arid Lands.

### ROOSEVELT'S FRIENDSHIP FOR THE WEST

#### Manner of Determining Reservoir Sites and How Organized Effort Secures the Highest Efficiency—Glimpses of the Future of "Arid America."

The general public has not had time to become familiar with the workings of the National Irrigation Act, which passed Congress, June 17th, 1902, through the direct personal influence of President Roosevelt.

As previously stated in these columns, this is one of the most important measures that has ever been enacted by Congress. Perhaps no one now living can fully appreciate its far-reaching beneficial effect upon the domestic, social and political lives of future generations of American citizens. Active operations began as soon as the measure became a law; an organized body of government engineers was already in the Western field connected with the geological and topographical surveys. It will be of interest to voters to know, before election day, something of the modus operandi of this National Irrigation Act for which President Roosevelt is personally and directly responsible.

cent to the streams. There will be much good land, however, which lies too high to be thus reached, and these lands, if irrigated at all, must be supplied by some form of pumping device or from artesian source. As the water flows down the steep river channels it can occasionally be diverted and power developed, the water being used for irrigation later. This power, carried by the electrical transmission mentioned in our last issue, can be used to pump water to the lands somewhat above the ordinary canals.

As previously stated, it is one of the engineering problems of the reclamation service to develop all power possible and utilize this in irrigating the higher lands by means of pumping. Another problem is that of discovering the quantity and quality of the underground waters and devising means by which these may be brought to the surface, if not too saline for agricultural purposes. Thus the work of the reclamation engineers is not merely hydraulic in character; it involves mechanical and electrical construction and a knowledge of geological principles which govern the occurrence of water underground.

#### National Irrigation Explained.

As previously stated, the funds for this great work are derived from the sale or disposal of public lands located in the thirteen States and three territories affected, and the work is consequently confined to this area. There is now in the reclamation fund, some \$27,000,000. This fund is increasing rapidly every month. When it is stated that the proportion of government land in many of these arid States is from 75 to 95 per cent, of the entire area, some vague idea may be had of the enormous amount that is destined to accumulate in this irrigation fund as the result of the sale of these government lands during the next fifty years. All of this money goes into the reclamation fund. Whenever any portion of it is expended for the construction of reservoirs, dams or ditches, it is returned to the government within a period of ten years, in the form of ten equal annual installments, from the actual occupants of the land so reclaimed by irrigation.

#### Some Tedious Work for Uncle Sam.

The easily available waters of the arid region have in many instances been appropriated and put to use by private enterprises, leaving for the government only the large, difficult or involved projects. It is not possible anywhere to find ideal conditions, and although far reaching results are to be accomplished, these will be achieved only after great skill and tact have been brought to bear.

Criticism will be launched against the government by the uninformed, because of the apparently slow progress in the development of great irrigation projects. In all cases it should be remembered that nearly all of such undertakings involve the application or trial of new methods and devices and the dealing with considerable numbers of persons who are private owners of land under such proposed irrigation projects. It will be seen that the work requires not merely skill, but time.

#### Over 300 Engineers at Work.

To carry out the purpose of this law, an efficient engineering corps has been organized, under military service rules, and from the men assigned in the field. Over three hundred such engineers, together with a large number of helpers, are already in the field. From time to time, other men are being added, especially from the graduates of professional schools throughout the country. It is the policy of the government to retain men for this work who are known to possess high principles and undoubted integrity, for it is believed that the great hydraulic work can be planned and built properly only by men of the highest type.

#### In the Execution of the Work, it is Necessary to Utilize Lands, Rights of Way or Privileges Owned by Individuals.

Many of these can be acquired by purchase; others must be condemned by process of law. It is not desirable to begin condemnation proceedings until all possible efforts have been exhausted to bring about a fair and business-like sale, as it is essential to secure and maintain the good will of the community. It is a better policy not to force matters, but even to risk some delay, rather than by main strength to bring about reforms which will be appreciated only after many years.

#### Selection of Reservoir Sites.

In each of the States and territories a general study is being made of natural situations which offer opportunities for reclaiming large bodies of land. After due preliminary work, a few of such projects, say two or three, which are the most promising, are selected for more careful survey and investigation. From a comparison of results so obtained, one of these is chosen by the district engineer. When he is ready to report upon the work, with recommendations, the facts and figures are submitted to the board of engineers, who pass upon them. Sometimes additional information is sought or the conclusions are modified.

#### National Irrigation for Private Lands.

As stated, Uncle Sam still owns from one-half to nine-tenths of the area of each of the Western States and territories affected by President Roosevelt's National Irrigation Act. He is the big land owner and will always remain the proprietor of the great mountain areas covered mainly with trees, and from which come the waters essential to the life of agriculture. Much of the best land in the valleys has already passed into private ownership and along almost every stream is a continuous succession of claims taken up under the Homestead or Desert Land law.

The public land, as a rule, is the bench land adjacent to the valley. Nearly every scheme for the reclamation of government land must of necessity involve the irrigation of land now in private ownership. The provisions of the law are such that the land owned by individuals can be irrigated in small tracts not to exceed 100 acres, that being the amount allowed for each individual. The law has been so framed as to require continuous residence on and cultivation of the land; whether originally in private or public ownership, the chief purpose being, of course, to bring about immediately a dense settlement in small, self-sustaining farms.

#### Organizing Communities for Irrigation.

Under the terms of the law, the works when built, are to be paid for in ten annual installments and are ultimately to be owned and operated by the people using the water. The problems before the reclamation service, therefore, are not merely engineering in character, but are largely legal and pertain to the organization of the irrigators into associations, so that the management and future control of the works may be placed in their hands. This is the most difficult part of the work. It is hard to bring together the discordant elements of a community, torn by conflicts over water, and weld them into a compact organization, sufficiently strong to maintain the works built by the government and distribute the water equitably.

#### Individual Home Builders.

Whenever a project for reclamation of government land is declared to be feasible, public lands under it are immediately taken up under the terms of the homestead law, and by the time the works are completed the land is nearly always in private ownership. Thus, whatever the initial condition may be, whether the arid land was owned at first by the government or by individuals, the results are the same—the establishment of homes upon small farms.

Where the land holdings in the hands of an individual or corporation are large, water for these cannot be obtained until they are subdivided and disposed of in small tracts to actual settlers. Such occupants must reside continuously for five years, at least, upon the land and



MISS DEMOCRACY—"I can't make these blamed things rise."

cultivate it before a clear title to the water can be had from the government. Thus, collusion or evasion of the purpose of the law is to a large extent prevented. In a rapidly growing country it is hardly credible that any collusion to obtain water can hold throughout a long period, especially with danger of forfeiture at the end of that time.

The main feature of the law is to secure the development of the arid region and the utilization of the great resources which experience has shown cannot be put to beneficial use by private enterprise, and which, if properly utilized, may become the greatest source of strength to the commonwealth through the creation of homes. It matters little whether the land thus utilized happens to be, at the time of construction, public or private ownership. The main thing is to secure ultimately the building of the homes and the placing of these in the hands of people who become self-supporting and who can and will refund to the government the cost of reclamation. This is an object in which not only the government, but all classes of citizens and most industries are directly interested.

#### All Business Will Be Benefited.

The transcontinental railroads recognize that they will be first beneficiaries and the perpetual gainers by this home-building movement and they are wisely contributing largely to the success of the movement. It is true some of them have land to sell, but the profit from the sale of such land is as nothing compared to the annual traffic resulting from the establishment of innumerable homes. The railroads could sell the lands to cattlemen, but as a matter of business they know it is much better to even donate them to settlers who will live on the farms and make homes of the newly irrigated heritage. The manufacturing and jobbing interests of the East have also contributed to this work to no small degree, as they believe that in the West is the greatest home market for manufactured products of all kinds.

#### Irrigation, Mother of Civilization.

There is no one thing that portends the future greatness of the present civilization more than the efforts now being put forth in arid regions of the earth, to make the desert and waste places habitable and productive. Archeologists tell us that where they have found man's struggle hardest, there they have found the highest types of civilization that are dead and gone. On the high plateaus of South America and the mesas of Mexico, in the desert where flows the Nile, on the bleached plains of Arabia and where the sacred Ganges ceases to the sea, are found traces of great ruined temples and shrines that equal and in some instances surpass the boasted skill of modern engineering, art and architecture.

#### Private Capital Inadequate.

Private enterprise is still active in the arid region, and there are many localities where irrigation works are being built by individuals and corporations, but the great problem can never be made commercially successful and vast tracts of fertile land will be condemned to sterility unless the government takes charge of such projects through the operations of the new reclamation law. If this law is successfully administered, which it will be under Republican administration, millions of prosperous homes will be built in localities now waste and desolate and the republic strengthened by myriads of conservative, prosperous, high-minded citizens.

#### Ideal Irrigated Homes.

A very small farm unit, says W. E. Smythe, makes it possible for those who till the soil to live in the town. The farm village or home center is a well established feature of life in arid America and the feature which is destined to enjoy wide and rapid extension. Each four or five thousand acres of cultivated land will sustain a thrifty and beautiful hamlet where all the people may live close together and enjoy most of the social and educational advantages within the reach of the best eastern towns.

#### Big Projects Under Way.

Among the important projects approved and now being constructed by the government, may be mentioned works at Sweetwater Dam, Wyoming; Gunnison Tunnel, Col.; Truckee and Carson Rivers, Nev.; Milk River and St. Mary's Lake, Mont. and Tonto Creek, Ariz. Roughly estimated, these will make possible the irrigation of something over one million acres of land at a cost of seven and a half million dollars, or an average of \$7.50 an acre. As a matter of fact, much of this area is unsuitable or unfavorable for cultivation. Probably only about 60 per cent of the total will be found worthy of a claimant; this will increase the average cost to something like \$12.50 an acre.

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Sweetwater Dam is on Sweetwater River, at Devil's Gate, forty miles west of Casper and forty miles north of Rawlins, Wyo. This project will reclaim about 100,000 acres. The Gunnison Tunnel scheme will reclaim about 100,000 acres and is located near Montrose, in Central Colorado. In Nevada it is proposed to divert water from Lake Tahoe, Cal., and its outlet—the Truckee river

#### Private Capital Inadequate.

into the Humboldt Valley and supply settlers in the vicinity of Reno. This project is destined to reclaim about 200,000 acres. The Milk River project in northern Montana will reclaim nearly 500,000 acres in the vicinity of Malta and Glasgow. At Tonto Creek, eighty miles above Phoenix, Ariz., immense inundating reservoirs will provide a supply of water to irrigate about 200,000 acres in Salt River Valley, which is already thickly settled.

#### Parker's Lenden-Footed Dulness.

The lenden dulness with which Candidate Parker misstates the Philippine situation is irritating to his more clever followers, while it amuses Republicans. General Grant once said "You can always trust a Democrat to make a mistake." He is sure to get on the wrong side, to stay there, and to advertise the fact.

#### Every Republican should see that his neighbor votes on November 8th.

If you have an apathetic friend, tell him that his vote is necessary to make the election of Roosevelt and Fairbanks certain, and make him accompany you to the polls.

#### Advice for Election Day.

- Forget your breakfast, if you will;
- Forget to light your good cigar;
- Forget to take your peppin pill;
- Forget to take the trolley car;
- Forget to kiss your wife good-bye;
- Forget your hat or overcoat—
- But ere election day is by,
- Be sure you don't forget to vote!

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#### The thing for Republicans to do this year is to VOTE.

The Democrats have the money of the trusts and can bring out to the polls all the ignorant, purchasable element. But they cannot bring out enough under any conditions to beat Roosevelt, if Republicans VOTE.

#### If you are satisfied with present conditions, be sure and vote for Roosevelt and Fairbanks and the Republican candidate for Congress in your district.

Judge Parker deplures that "all the leaders of the Republican party (of a generation ago) have passed away," and "in their places have come very differ-

# DEMOCRATIC PROTEST

## VIGOROUS DENUNCIATION OF EX-SECRETARY OLNEY.

His Attempt to Belittle the War with Spain Reopened and His Immediate Withdrawal from the Speaking Campaign Demanded.

The New York American, one of William R. Hearst's newspapers, in its issue of Oct. 15th, thus criticised a speech delivered by ex-Secretary Olney:

"Take Olney off the stump. Democrats of his type make no votes for the party. Last night, in his speech at Cooper Union, the former Attorney-General and later Secretary of State under President Cleveland offered a characteristic keynote.

"In his argument against imperialism he spoke of 'our needless scrimmage with Spain over Cuba,' and subsequently referred to 'that development of jingoism and militarism which brought on the scrap with Spain.'

"That is a keynote to which the country will not respond in the way expected by Mr. Olney. It is not Americanism and certainly it is not democracy.

"The war for the liberation of Cuba had the heart of the people behind it. It was chivalric, unselfish and glorious. Limited and careful gentlemen of the Olney type found themselves incapable of rising to the height of the popular enthusiasm, but, whether in or out of office, they were swept along with the tide of noble sympathy for an oppressed people. History will record that the United States in expelling Spain from the New World reached a moral eminence quite unparalleled in the action of nations.

"We owed nothing to Spain; her occupancy of Cuba had been continuous crime, as was her whole career in this hemisphere. We had been patient too long. The Virginia infamy should have been the signal for her eviction from this side of the globe. The culmination of her atrocities was the blowing up of the Maine, riding at anchor in what was supposed to be a friendly port.

"And after that unexampled outrage Olney speaks of our 'needless' war with Spain.

"No American who is as broad as his country can look back upon the Spanish war without a thrill of pride.

"Mr. Olney speaks for a kind of Democrats who are infinitely hurtful to the Democratic party. They seem to be without capacity of entering into the feelings of the people, sharing their patriotic ardors, or sympathizing with their national aspirations. He is an able man, no doubt; an excellent lawyer and man, well, but he damages Democracy and the candidacy of Judge Parker when he puts himself forward as a spokesman at once of 'Little Americanism' and the party which is historically that of expansion.

"A great people are not to be cribbed, caged and confined within the cold-blooded and petty limitations of the Olney conception of national duty and destiny. The votes of young men—men of spirit—cannot be won by these men, one of the loftiest deeds in the nation's life.

"Democrats, real Democrats, are not to be deprived of their share in the glory of freeing Cuba. It is to be the everlasting honor of the party that through its representatives in Congress and in the press—the 'American' foremost in the fight—forced a reluctant administration to declare the war. Had Cleveland been in the White House and Olney in the Cabinet, we may be quite sure that the heroes of the Maine would have perished in vain and Cuba continued to be a Spanish shambles at our door.

"The Democracy has no quarrel with any man who took part as soldier or civilian in rescuing Cuba, and it is not to be tolerated that the party should be placed in such a position. Theodore Roosevelt, as one who took part in that brief conflict, has reason as a candidate to congratulate himself upon Mr. Olney's presence on the stump. Judge Parker and his managers ought to lose no time in revising the list of campaign speakers and eliminating from it the Olneys, the Cleverlands and all other discredited, plutocratic, narrow-minded and hard-hearted Democrats, so called, who are responsible for the apathy among the people of which complaint is made at Democratic headquarters.

"How can the workmen, for example, be expected to grow enthusiastic in a canvass which numbers among its conspicuous orators the Attorney-General who discovered the sacredness of a Pullman car and a President who ordered troops into Illinois against the protest of her governor for the purpose of crushing a strike?

"Olney has spoken for Parker, and it is announced that Cleveland is also to mount the platform. If Judge Parker understands the American public as well as we think he does, he will put his foot down and avert that crowning calamity. Let real Democrats do the talking from now on."

#### Lawyers Form a Club.

The lawyers of New York City have formed a Roosevelt and Fairbanks Club, whose object is to show the confidence of the members of the bar in the administration of President Roosevelt, based upon the fidelity, fairness and effectiveness with which he has executed and enforced the laws of the United States, and to promote good government by the election of Fairbanks and Roosevelt. The Hon. Ellhu Root is president, Charles H. Sherrill, 39 Broad street, New York City, secretary, and Herbert L. Satterlee, treasurer.

"It is a standing order to every American diplomatic and consular officer to protect every American citizen, of whatever faith, from unjust mistreatment and our officers abroad have been stringently required to comply with this order."—Roosevelt's letter of acceptance.

If you are fighting a wily, tricky enemy it is well to watch him closely. Democracy is resorting to every ungodly, infamous scheme to gain control of the government. Therefore, let every Republican be on his guard. Go to the polls early on November 8th, and don't fail to vote.

VOTE EARLY ON ELECTION DAY, AND SEE THAT YOUR NEIGHBORS, EMPLOYERS AND FRIENDS VOTE, TOO!